

Applicant : Harry Meade, Daniel Pollock and Paul
DiTullio
Serial No. : 09/012,904
Filed : January 23, 1998
Page : 2

Attorney's Docket No.: 10275-028002 / GTC-1C US

D2
COPY
TAAGGTCCACAGACCGAGACCCACTCACTAGGCAACTGGTCCGTCCAGCTGTAAAGT
GA (SEQ ID NO:2).--

Please replace the paragraph at page 11, lines 3-7 with the following rewritten paragraph:

D3
--The region immediately upstream of the initiating ATG was then mutagenized using an oligonucleotide with the following sequence: 5' AGT GAA TTC ATG CTC GAG AGC CAT GGC CTG GATC 3' (SEQ ID NO:3). Digestion of the final plasmid with XhoI produced the modified light chain cDNA that was flanked by XhoI cohesive ends.--

In the claims:

Please amend claims 19, 28, 29 and 30 as follows:

~~19~~
SUB E
-- 19. (Amended) A DNA construct for providing a heterologous immunoglobulin in the milk of a non-human transgenic mammal comprising a promoter sequence that results in the preferential expression of a protein-coding sequence in mammary gland epithelial cells, an immunoglobulin protein-coding sequence, a 3' non-coding sequence; and a unique restriction site between the promoter and the 3' non-coding sequence, wherein the immunoglobulin protein-coding sequence is inserted into the restriction site.

21. (Reiterated) The construct of claim 19 wherein said promoter is selected from the group consisting of the beta lactoglobulin promoter, whey acid protein promoter, and the lactalbumin promoter.

22. (Reiterated) The construct of claim 19 wherein said immunoglobulin protein-coding sequence encodes a light chain or a fragment thereof.

23. (Reiterated) The construct of claim 19 wherein said immunoglobulin is of human origin.

25. (Reiterated) The construct of claim 19 wherein said promoter is the casein promoter.

26. (Reiterated) The construct of claim 19, wherein the restriction site is an XhoI restriction site.

27. (Reiterated) The construct of claim 19, wherein the 3' non-coding sequence is a 3' non-coding region from a mammary-specific gene.

28. (Amended) The construct of claim 19, wherein the immunoglobulin protein-coding sequence encodes a heavy chain or a fragment thereof.

DS
29. (Amended) A mammary gland epithelial cell comprising the construct of claim 22 and a construct comprising an immunoglobulin protein-coding sequence which encodes a heavy chain or a fragment thereof, operatively linked to a promoter sequence that results in the preferential expression of the protein-coding sequence in mammary gland epithelial cells, wherein the cell expresses the light and heavy chains and secretes a heterologous, assembled immunoglobulin comprising the light and heavy chains in functional form.

Sub
30. (Amended) A mammary gland epithelial cell comprising the construct of claim 28 and a construct comprising an immunoglobulin protein-coding sequence which encodes a light chain or a fragment thereof, operatively linked to a promoter sequence that results in the preferential expression of the protein-coding sequence in mammary gland epithelial cells, wherein the cell expresses the light and heavy chains and secretes a heterologous, assembled immunoglobulin comprising the light and heavy chains in functional form. --
